ABSTRACT OF THE DISCLOSURE

provide air conditioning To an system which simultaneously eliminates shortage of lubricating oil of a 5 variable displacement compressor and degradation of cooling efficiency of the system. An air conditioning system is configured to have a variable displacement compressor under flow rate control by a proportional flow rate control solenoid valve forming a variable orifice in 10 a discharge-side refrigerant flow passage, and a constant differential pressure valve for controlling a differential (PdH - PdL) across the variable orifice, developed depending on a flow rate Qd of refrigerant, to a constant level, and an expansion valve of a normal charge 15 By providing the expansion valve of the normal charge type, it is possible to always hold refrigerant at an outlet of an evaporator in a superheated state, whereby even during low load operation, high cooling efficiency can be maintained. Further, the proportional flow rate 20 control solenoid valve can be controlled such that it causes refrigerant to flow at a minimum flow rate required for circulation of oil in response to an external signal. This makes it the possible to prevent variable displacement compressor from falling short of lubricating 25 oil during the low load operation.